

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/062558 A1

(51) International Patent Classification⁷: H04L 12/56, 29/06

(21) International Application Number: PCT/SE2004/000265

(22) International Filing Date: 27 February 2004 (27.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/530,904 22 December 2003 (22.12.2003) US

(71) Applicant (for all designated States except US): TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-126 25 Stockholm (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): FODOR, Gabor [HU/SE]; Astrakangatan 124, S-165 52 Hässelby (SE). ERIKSSON, Anders [SE/SE]; Dovregatan 12, S-164 36 Kista (SE).

(74) Agent: DR LUDWIG BRANN PATENTBYRÅ AB; Box 17192, S-104 62 Stockholm (SE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

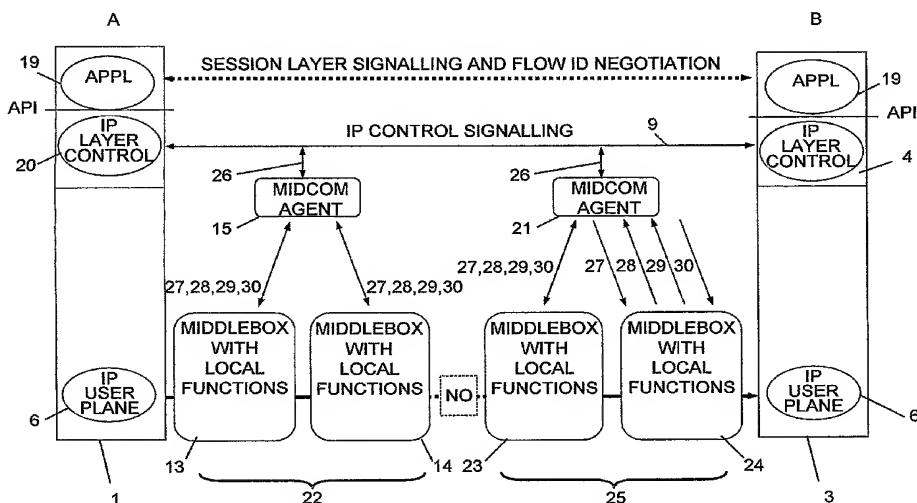
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONTROL OF MOBILE PACKET STREAMS



(57) Abstract: The invention relates to a method, device and system for control of mobile packet flows forwarded between IP based networks. Individual packet flows on an IP user plane (6) traverse middleboxes (13, 14, 23, 24) that are controlled from a midcom agent (15, 21). Each user flow registers its presence (29) in each middlebox it encounters on its way from its source (A) to its destination (B) at the user plane. In response each middlebox registers itself and the mobile flows it handles at the midcom agent with which they communicate using a midcom signalling protocol. The midcom agent comprises functionalities that its controlled middleboxes have and can provide control messages for how a middlebox shall handle a registered flow. The registration provides the midcom agent (15, 21) with knowledge of registered flows and middleboxes which allows the midcom agent to send control orders to the middleboxes that registered themselves, said orders pertaining to the handling of the flows at the respective middleboxes. A mechanism for control signalling at the IP control plane is described. Fig. 4 for publication.

WO 2005/062558 A1